

Major Ratings and Characteristics

$I_{F(AV)}$	5.0 A
V_{RRM}	20 V to 100 V
I_{FSM}	150 A
V_F	0.50V, 0.55 V , 0.70 V, 0.85V
$T_j \text{ max.}$	125 °C



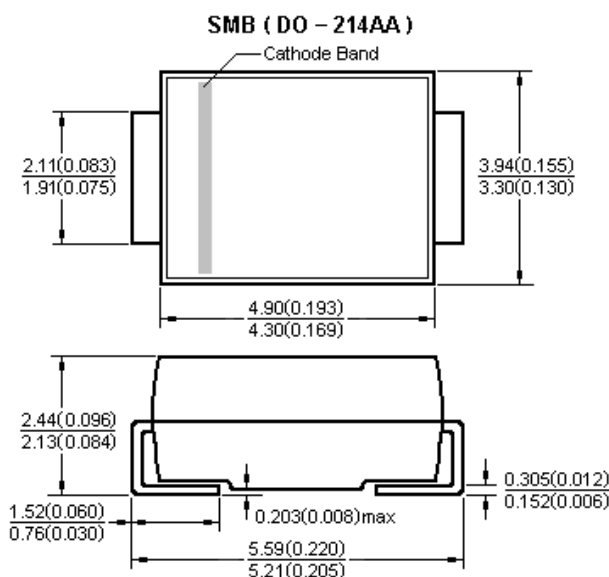
SMB (DO – 214AA)

Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Date

- **Case:** JEDEC DO-214AA molded plastic body over passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end



Maximum Ratings & Thermal Characteristics & Electrical Characteristics

($T_A = 25\text{ °C}$ unless otherwise noted)

	Symbol	SS52 SK 52	SS53 SK 53	SS54 SK 54	SS55 SK 55	SS56 SK 56	SS58 SK 58	SS510 SK 510	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current	I _{F(AV)}	5							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150							A
Maximum instantaneous forward voltage at 5.0A	V _F	0.50	0.55		0.70		0.85		V
Maximum DC reverse current T _A = 25 °C at Rated DC blocking voltage T _A = 100 °C	I _R	0.5							mA
		10					20		
Thermal resistance from junction to Lead	R _{θJL}	25							°C/ W
Operating junction and storage temperature range	T _J , T _{STG}	−65 to +125							°C

Note: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0 mm) copper pad areas

Characteristic Curves ($T_A=25\text{ }^{\circ}\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

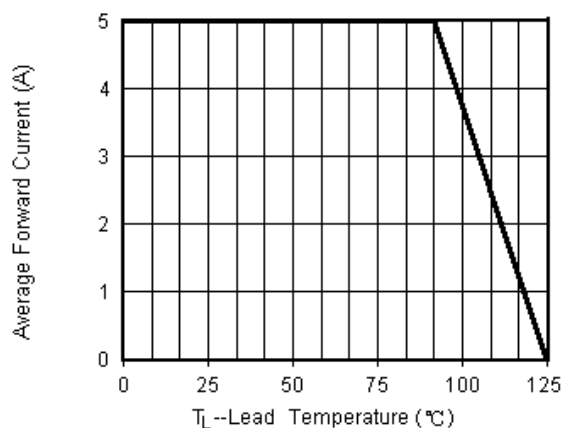


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

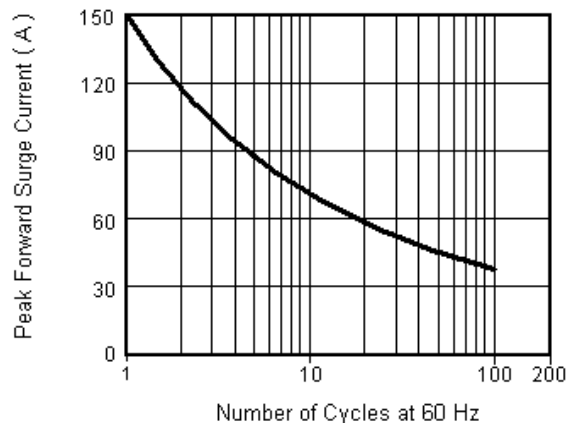


Fig.3 Typical Instantaneous Forward Characteristics

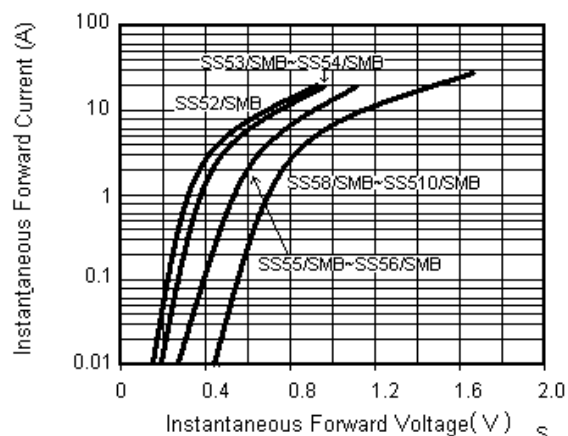


Fig.4 Typical Reverse Leakage Characteristics

